AMENDMENTS

IN THE CLAIMS:

Please amend claims 1 and 20, and cancel claim 3 as provided below:

1.   (Currently Amended) A computer readable <u>storage</u> medium comprising executable instructions that make up a layered network device driver system configured to interface with a host computer system having an operating system, memory, and a processor, the layered network device driver system comprising:

an operating system dependent module in the network device driver system configured to communicate in an operating system dependent format to initiate sending of transmit data and to provide received data <u>from or to the memory associated with the host computer system, respectively</u>;

an operating system independent module in the network device driver system configured to communicate with the operating system dependent module and perform processing on the transmit data and the received data;

a network device independent module in the network device driver system and comprising encoding that is compatible across multiple network devices, the network device independent module configured to place the transmit data in one or more transmit descriptor rings and obtain the received data from one or more receive descriptor rings that reside in the host computer system; and

a network device dependent module in the network device driver system and configured to communicate with the network device independent module and with one or more network devices and control the one or more network devices to send the transmit data from the one or more transmit descriptor rings and to receive the received data into the one or more receive descriptor rings<u>,</u>

<u>wherein the network device independent module is operable to selectively append the transmit or receive data with optional parameters; and</u>

<u>wherein the network device dependent module is operable to verify that the optional parameters comply with capabilities of the network device.</u>

2.   (Previously Presented) The system of claim 1, wherein the network device dependent module is operable to configure and initialize one or more registers of the network device.

3.   (Cancelled).

4.   (Original) The system of claim 1, wherein the operating system dependent module is operable to receive a packet to be transmitted from the operating system in an operating system specific format.

5.   (Original) The system of claim 4, wherein the operating system dependent module is further operable to convert the packet into an array based data structure, wherein the data structure comprises virtual pointers to one or more data buffers.

6.   (Previously Presented) The system of claim 5, wherein the operating system independent module is operable to convert the virtual pointers of the array based data structure into physical pointers, and operable to communicate with a plurality of operating system dependent modules associated with a respective operating system.

7.   (Previously Presented) The system of claim 6, wherein the network device independent module is operable to attach the one or more data buffers to a transmit descriptor, wherein the transmit descriptor is of the one or more transmit descriptor rings.

8.   (Previously Presented) The system of claim 1, wherein the network device independent module is operable to access one or more data buffers of a packet associated with a received frame along with optional information, and

operable to communicate with a plurality of network device dependent modules associated with a respective network device.

9.   (Previously Presented) The system of claim 8, wherein the network device dependent module is operable to analyze the packet and optional information for status, and

determine if the packet is less than a predetermined size limit with respect to a coalescing size, and if so, coalesce the packet and buffers with one or more other packets and buffers.

10.   (Original) The system of claim 9, wherein the operating system dependent module analyzes the packet for errors.

11.   (Original) The system of claim 10, wherein the operating system dependent module is further operable to provide the packet to the operating system.

12.   (Previously Presented) The system of claim 1, further comprising a message block format for transferring packets between the operating system and the operating system dependent module for receive operations, the message block comprising:

a mandatory parameter that includes one or more virtual pointers to one or more data buffers that contain data for a received frame; and

an optional parameter pointer that points to one or more optional parameters.

13.   (Original) The system of claim 12, wherein the one or more optional parameters respectively include a type, a size, and one or more parameters.

14-19. (Canceled)

20.   (Currently amended) A method of transmitting a frame using a host computer system, the method comprising:

obtaining a packet to be transmitted from an operating system in the host computer system;

converting the packet into an array based data structure that is independent of the operating system;

converting [[a]] one or more virtual memory address~~es~~ of the array based data structure that reference one or more data buffers in a host memory that store the packet into [[a]] one or more physical memory address~~es~~;

identifying any logically contiguous data buffers associated with the virtual memory addresses of the array based data structure that store the packet, and ~~converting~~ replacing the virtual ~~address~~ pointers associated with the identified logically contiguous data buffers with ~~into~~ a single physical pointer; ~~memory address;~~

attaching the one or more data buffers to a transmit descriptor by storing one or more physical pointers associated with the one or more buffers and control information associated with the packet in a transmit descriptor ring associated with the transmit descriptor;

attaching optional information to the transmit descriptor by an operating system independent module by storing the optional information in the transmit descriptor ring;

transmitting the packet by a network device by retrieving data from the one or more buffers using the one or more physical pointers within the transmit descriptor ring; and

freeing the one or more data buffers for other use after transmitting the packet.

21.   (Original) The method of claim 20, wherein the packet is obtained from the operating system by an operating system dependent module in an operating system specific format.

22.   (Previously Presented) The method of claim 20, further comprising coalescing the one or more data buffers into contiguous memory space dependent on a predetermined buffer size.

23.   (Original) The method of claim 20, further comprising attaching the freed data buffers to a send queue for packets awaiting transmission.

24.-25. (Canceled)